

carried out systematically with all the patients admitted to one of Heubner's wards. Of 100 children thus examined, none of whom presented clinical evidence of angina or stomatitis, 24 were found who yielded diphtheria bacilli in cultures of their buccal secretions, four of this number being already patients in the ward at the time examinations were begun. Of the remaining 20 cases, 6 entered the hospital harboring bacilli in their throats, and the remaining 14, though free from the bacilli at admission, were found to have become infected after several days to several weeks of residence. The transmission of the bacilli from a child in one bed to one in a neighboring bed could often be observed.

None of these children who had bacilli in their throats presented any local or general symptoms of diphtheria, and often the germs remained demonstrable for weeks and even months (two and a half months in one case), without further evidence of their presence, though in several of these cases the bacilli were very virulent.

Of the six children who brought bacilli into the hospital, only one had a history of exposure, he coming from a family where five weeks before there had been several cases of the disease. Two came from the measles pavilion, and the remaining three had never knowingly been in contact with children suffering from the disease.

In twelve cases the bacteriological examination was completed by inoculation-tests. In six cases the bacilli were found to be extremely virulent and caused death of the injected animals in from twenty-four to forty-eight hours; in the six other cases the virulence was of moderate degree.

A Case of Creolin-poisoning in a Child.—ANTHONY (*Medical Record*, March 27, 1897) relates a case of acute poisoning with this drug occurring in his own child, aged five years. The boy was suffering from whooping-cough, for which inhalations of creolin were being used. By mistake the nurse gave him a teaspoonful of creolin, thinking it was a cough-mixture. The mistake was immediately recognized, and the child suffered great agony, the lips and chin becoming white. The father reached him about ten minutes after the ingestion of the drug, to find him comatose, with greatly contracted pupils, cold skin, and complete muscular relaxation. Respiration was superficial, jerky, and irregular; the pulse rapid, faint, irregular, and at times very indistinct. The general condition suggested the use of atropine, and $\frac{1}{160}$ grain was given hypodermatically, followed in thirty minutes by a second dose of $\frac{1}{80}$ grain, artificial respiration being kept up in the meantime. Shortly after the second dose of atropine the pupils began to dilate and the heart's action improved. In two hours consciousness was sufficiently restored to permit liquids to be swallowed, and then sulphate of magnesium in saturated solution was given until four drachms of the salt had been taken. Six hours after ingestion of the creolin one ounce of black urine was passed. This, on standing, deposited a black granular sediment resembling charcoal. Recovery was rapid, and no unpleasant sequelæ remained except from temporary constitutional disturbance due to the atropine, and the local corrosive effects of the poison upon the lips, mouth, and throat. The value of atropine and the sulphates thus seems clearly indicated in the treatment of cases of poisoning by creolin.

GYNECOLOGY.

UNDER THE CHARGE OF

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Atrophy of the Uterus following Castration.—GOTTSCALK (*Archiv für Gynäkologie*, Band liii. Heft 2) concludes that the atrophic changes seen in the uterus after the normal or artificial climacteric are due neither to the diminished blood-supply, nor to nerve-degeneration, as shown by experiments in animals. So long as healthy ovarian tissue is preserved the spermatie vessels on both sides may be ligated without causing atrophy of the uterus. In other words, while ovulation persists this change is absent. The normal size and consistence of the organ are due to periodical vasomotor paralysis. When ovulation ceases, normally or artificially, this periodical increase in the blood-supply does not occur, the vessels lose their tone, and general atrophy results.

The writer further states that after removal of the adnexa for disease due to gonorrhœal infection the endometrium in the specimens examined by him, as well as the mucosa lining the stumps of the tubes, showed no evidence of such disease. This is opposed to the view of those who advise extirpation of the uterus in these cases. Even when a profuse uterine discharge persisted after castration, it contained no specific micro-organisms.

Hemorrhages at the Climacteric.—REINICKE (*Ibid.*) states that climacteric hemorrhages are due to arterial sclerosis, in consequence of which the vessels lose their muscular tone and are unable to contract, as they do normally at the time of the menstrual flow; hence the menorrhagia which is so common at the menopause. When the hemorrhages persist in spite of repeated curettement and the administration of ergot (especially if the drug increases the flow), it is safe to infer that these vascular changes are present, especially if the absence of endometritis, neoplasms, and disease of the adnexa can be excluded. This diagnosis is confirmed if the uterine body is hard and arterial changes are noted in the extremities.

Since these hemorrhages are due to sclerosis of the uterine arteries, no effect can be expected from the use of drugs or electricity—in fact, they are usually aggravated by ergot, which is apt to cause venous congestion rather than arterial anæmia. Rest, strict regulation of diet, with the avoidance of alcohol, strong tea and coffee, and the use of laxatives are sufficient in mild cases. Curettement has been advised, but this operation simply opens up the mouths of numerous vessels which are unable to contract, and thus increases the flow. The cause of the hemorrhage is not in the mucosa, but in the muscular substance of the uterus. Dilatation of the cervical canal and intrauterine applications of Monsell's solution are preferable. In obstinate cases in which the patient is really in danger from repeated hemorrhages total extirpation

is indicated, the results being quite satisfactory, while the mortality is only a little over one per cent. Castration is not a sure means of relief. This radical treatment should be adopted earlier in the case of workingwomen who cannot rest during the flow.

The Anatomy of the Ovaries in Osteomalacia.—HEYSE (*Ibid.*), from a careful microscopical study of ovaries removed from osteomalacic women, decides that there is no reason to infer that there is a marked decrease in the number of primordial follicles. This is also proved by the well-known fertility of these subjects. He believes that the ovarian nerves play an important part in the process and that future investigations will disclose pathological changes in them; but whether these changes are primary or secondary is not clear. Unfortunately, ovaries have not been examined in an early stage of the disease.

Treatment of Sterility.—LEVY (*Frauenarzt*, 1896, No. 11), in a judicious article on this subject, calls attention to the tendency of both physician and patient to ascribe the cure of sterility to some particular method of treatment, either operative or non-operative. He insists upon the necessity of examining the husband's semen before beginning any course of treatment, even when some obvious pathological condition is found in the wife. The importance of the psychological factor must never be lost sight of. The assurance given to the patient that she is capable of conceiving may in itself serve to reconcile certain domestic obstacles. In any case the principle *nil nocere* should always be borne in mind, for in performing an operation for the cure of sterility the surgeon may substitute a pathological for a normal condition.

Significance of Pelvic Pain.—DOLÉRIIS and PICHEVIN (*La Gynécologie*, 1896, No. 6) conclude an article on this subject with practical deductions concerning the clinical significance of various pains referred to the pelvis. In acute metritis the pain is deep-seated, diffuse, and radiates toward the loins, hips, and hypogastrium. It is principally intrapelvic and is accompanied by vesical and rectal tenesmus. It is most severe in acute endometritis, being least in the puerperal form. The pain, however, is only agonizing when the adnexa, peritoneum, or parametrium are inflamed. Chronic metritis is characterized by attacks of uterine colic, mostly confined to the menstrual period. In these cases traction on the cervix gives rise to lumbar pains due to stretching of the sacro-uterine ligaments.

The pains in retroversion are of several different types. If complicated by adhesions and disease of the adnexa the pain is characteristic of these conditions. When retro-uterine exudates are present the pain is less severe, except when attempts at replacement are made. It usually radiates toward the rectum, and is often accompanied by severe tenesmus, especially during defecation; this is quite pathognomonic. In simple retroversion the pain may be in the uterus, at the base of the broad ligaments, and in the neighboring organs. The posterior surface of the organ at the fundus is the seat of greatest tenderness, which is to be distinguished by palpation from that caused by pressure of a prolapsed ovary or tube. Lumbar and inguinal pains are often present due to traction on the sacro-uterine and round ligaments.

The characteristic pain in prolapsus uteri is lumbo-sacral, from traction on the sacro-uterine ligaments, to which is often added painful sensations in the flanks due to dragging on the broad ligaments, and also in the epigastrium from ptosis of the abdominal viscera. Vesical tenesmus is more constant than in retroversion; but rectal tenesmus, on the contrary, is absent.

Cancer of the corpus uteri is often painless until the perimetrial tissues have been invaded. Attacks of uterine colic are characteristic of corporeal, as contrasted with cervical malignant disease.

Rapidly growing fibroids are attended with more pain than are those which develop slowly. Cystic degeneration increases the pain, which is also most marked in connection with multiple growths within the muscular wall of the uterus. The pains are aggravated by the menopause and often disappear temporarily or permanently after the climacteric. Complications—disease of the adnexa, adhesions, etc.—aggravate the distressing symptoms. The painful sensations due to pressure are readily explained.

Cirrhotic ovaries are most painful, especially when adherent. Attention has often been called to the inter-menstrual pain caused by this condition. When both ovaries are diseased, the pain often alternates, being on one side at one month, and on the opposite side the following month. The pain in chronic salpingitis is twofold, and is due, first, to traction on the nerves within the tube; and, secondly, to distention of the tubal wall, especially during menstruation. The mere presence of adhesions is not sufficient to explain the pain in these cases; the occurrence of an actual infective inflammation is necessary. Pain due to tubal disease is aggravated at the menstrual periods, but the inter-menstrual pain noted in ovarian trouble is absent.

The pain in salpingo-oöphoritis is referred to the lower abdomen and to the affected side, being deep-seated and increased by direct palpation. It is usually paroxysmal and lancinating during exacerbations, dull and heavy during the interval between acute attacks. It is often entirely out of proportion to the extent of the lesions; the amount of displacement of the affected organs rather than the size of the inflammatory mass seems to govern the severity of the pain.

[This ingenious attempt to refer certain distinct pelvic pains to recognized pathological conditions shows keen observation and analysis. Practically, there are so many exceptions to the rules laid down by the writers that they must be regarded as suggestive rather than positive. The paper is, however, worthy of careful reading, though somewhat prolix.—H. C. C.]

New Operation for Retro-displacement.—GODINHO (*Ibid.*) describes the following operation for the cure of retroflexion with fixation. The vesico-uterine pouch is opened by a transverse incision, after detaching the bladder from the cervix; two fingers are introduced, adhesions are separated, and the uterus is replaced bimanually. A silk suture is then passed through one of the round ligaments near its base, is tied, and is then passed through the same ligament three inches below the former point. The same procedure is carried out on the opposite side. The sutures are then tied, thus shortening the ligaments, and with the same needles the resulting loop is sewed together on either side. The wound is then closed. If the uterus is prolapsed, Freund's operation can be performed at the same sitting.

The results obtained by the author were entirely satisfactory. The operation is not only simple, but is applicable to cases of complicated as well as simple retroversion. Diseased adnexa can be removed at the same time. The uterus is movable, pregnancy is not interfered with, and there is no visible and painful scar. Wertheim has suggested a similar procedure, supplemented by shortening of the sacro-uterine ligaments, which seems to the writer to be unnecessary.

Benign Changes in the Endometrium.—(*Zeitschrift für Geb. und Gyn.*, Band xxxiii. 2). From microscopical examination of the endometrium in 115 cases PINKUSS found glandular changes in 24 and interstitial in 91. In the former the inflammation is not primary in the glands, but is due to circulatory disturbances caused by masturbation, undue sexual irritation (incomplete coitus), and ovarian causes. Interstitial endometritis, on the other hand, is always due to previous infection. It is characterized by hemorrhage and purulent discharge. The glandular form gives rise to dysmenorrhœa and menorrhagia, the latter being prolonged rather than profuse. Abundant atypical hemorrhages are present in cases of atrophy of the mucosa.

Prolapse of the Uterus in Young Girls.—STEFKOWSKI (*Gaz. lek in Przegl. Chir.*; *La Gynécologie*, 1897, No. 1) reports the case of a young woman, aged twenty-five years, who had suffered for twelve years from frequent attacks of vomiting. Since the age of fourteen she had engaged in hard manual labor. Menstruation began at seventeen, but several months before this time she had prolapsus. At the age of twenty the uterus and vagina were entirely outside of the body. The pelvis was markedly contracted, and the patient had pulmonary tuberculosis. The displacement was attributed by the writer to the poor constitution of the patient, the arrest of development of the uterine ligaments, and increased abdominal pressure due to frequent attacks of vomiting and the carrying of heavy weights.

KARCZEWSKI (*Ibid.*) cites the case of a girl, aged thirteen years, who had complete procidentia of gradual development, due to carrying heavy burdens. Five days before entering the hospital the rectum also prolapsed.

Obstinate Cystitis in the Female.—ESCAT (*Annales des Mal. des Organes Génito-urinaire*, 1897, No. 2) concludes a lengthy paper on this subject as follows: 1. In cases of cystitis resisting ordinary treatment a careful examination should be made of the pelvic organs to determine if there is not some extra-vesical cause for the symptoms. The urethra and kidneys should also receive due attention. 2. After exhausting the usual local methods of treatment (drainage, irrigation, curettage, etc.), epicystotomy should be performed if there are no renal complications. Through the incision the ureters can be catheterized directly, and any diseased portions of the mucosa can be reached with the curette or thermo-cautery. 3. Vaginal cystotomy is preferable in cases of accompanying renal trouble, or when the patient's general condition is bad. 4. A still more thorough plan of surgical treatment is to follow the epicystotomy and cauterization immediately with a vaginal cystotomy, thus securing perfect drainage.

HYGIENE AND PUBLIC HEALTH.

UNDER THE CHARGE OF

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The Plague in Bombay.—In my last report I remarked on the connection between overcrowding, filth, etc., and the prevalence of the plague, calling attention to the comparative immunity enjoyed by the Europeans and the natives of India resident in Hong-Kong, where the disease was practically confined to the Chinese quarter, even Chinamen living in the houses of Europeans or under like conditions escaping infection; and among those attacked the case-mortality of Europeans and Indians was conspicuously lower than that among the Chinese. I also referred to the contrast presented by the almost ideal perfection of the sanitary conditions of the British quarters of Hong-Kong, in which too our Indian brethren reside, and the filthy habits and surroundings of the Chinese population; and between the former and those of Bombay, the insanitary conditions of which fully accounted for the severity of the plague in that city, though it was not endemic in India, as is the cholera, and rarely obtained a footing in other parts of the country save in years of famine.

I will now give a fuller description of the sanitary defects of Bombay, the present state of which is a disgrace to our otherwise able and beneficent administration, and is in some respects as bad in the quarters inhabited by the Europeans and wealthy natives as in the poorest. The sewers are laid with so small a gradient that they are not self-cleansing, and from insufficient pumping are in part choked with deposits, while at high tides and during heavy rains the sewage rises in the manholes and even into the basements of the houses. Pipe-drains are not laid in concrete, even where the soil is water-logged or composed of made ground, and are consequently liable to sinkage and dislocation at the joints. The foreshores are offensive in the extreme, and the flats on the outskirts of the city present pools of stagnant sewage and heaps of refuse which might have been utilized for reclaiming the salt-marshes at Coorlea, as was formerly begun with marked success.

The native quarter of the city is largely built on made soil, much of it composed of refuse, and is unsewered or drained except by surface-drains or gutters, which carry off so much of the storm-waters and liquid sewage as is not absorbed by the soil, while the solid excrement and refuse are removed in baskets by the sweepers, to be carted away and emptied into one of the main sewers or deposited on the flats. The want of public latrines leads to the use of waste ground and open spaces by the natives employed at the docks and other outdoor labor. The greater part of the poorer classes are